

# **US Fire Administration National Fire Programs Applied Research & Technology**

**National EMS Advisory Council  
Washington DC  
January 16, 2020**



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# The Research Program of the National Fire Data Center

- Reduce Firefighter Line of Duty Fatalities and Injuries
- Reduce Civilian Fire Fatalities, Injuries, and Property Loss
- Support USFA's Initiatives in Emergency Medical Services (EMS)
- Improve Operational Activities



# The National Fire Data Center

- Manage the National Fire Incident Reporting System (NFIRS), fire dept registry, and firefighter on duty fatality listing
- Encourage and assist state, local, public and private agencies in standardized reporting



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# The National Fire Data Center

- Dissemination of information, studies, reports, and data about fires and other fire department responses
- Manage research and development to aid in fire detection, prevention, rescue, suppression, and improve firefighter and EMS responder health and safety and reduce civilian death and injuries from fire



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# The National Fire Data Center

NFDC and EMS

But, we do more than just fire research . . .



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# Health and Wellness

- USFA/NFDC works with multiple federal partners, state and national organizations to perform research and develop reports and studies on responder safety and health.
  - Vehicle Safety
  - Roadway safety
  - Lighting studies
  - Conspicuity



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# Health and Wellness

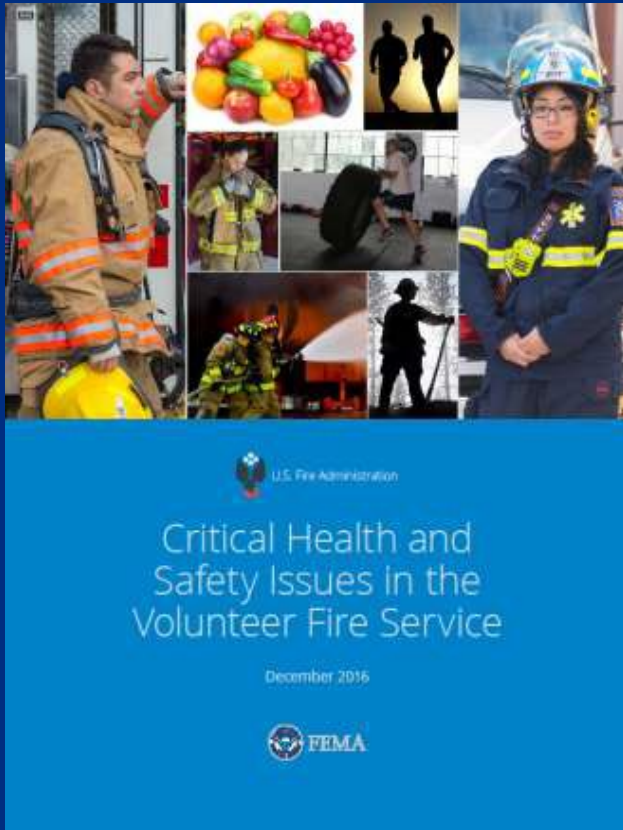
- Safety, health, ergonomics and wellness
  - Cancer studies (ongoing)
  - Behavioral Health
  - Ergonomics and Wellness (2020 release)
- Violence against responders
  - EMS Report Update (2020 release)
- Station design
- Recruitment and Retention



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# Critical Health and Safety Issues for Volunteer Fire and EMS



**With the National  
Volunteer Fire  
Council (NVFC) -  
2016**





# Firefighter Cancer Studies



Partnered with  
National Institute of  
Occupational  
Safety and Health  
(NIOSH) – 2010 =>  
Ongoing

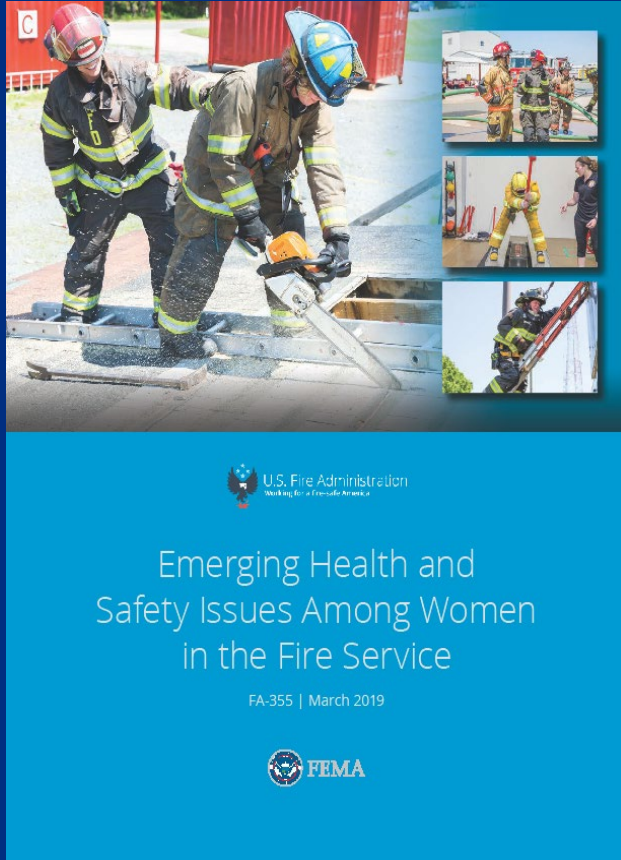
<https://www.cdc.gov/niosh/firefighters/health.html>



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# Emerging Health and Safety issues Among Women Emergency Responders

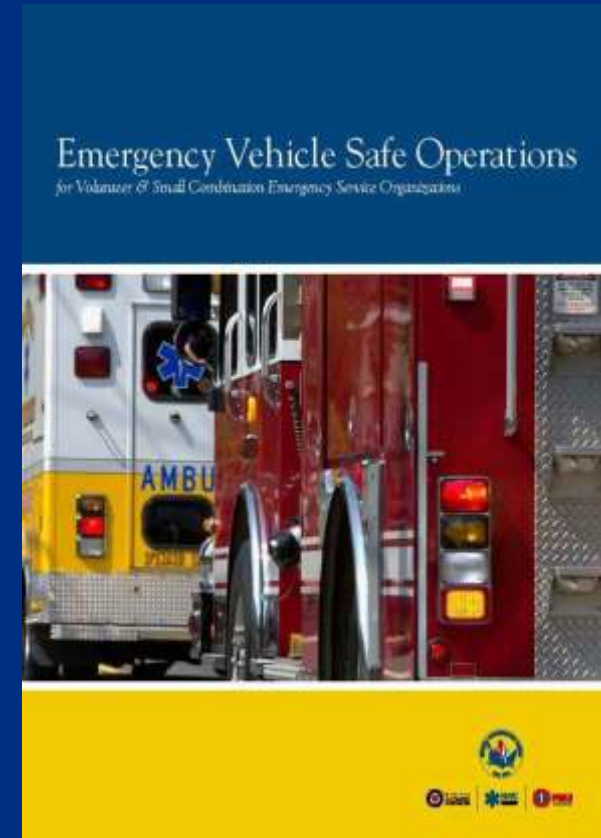
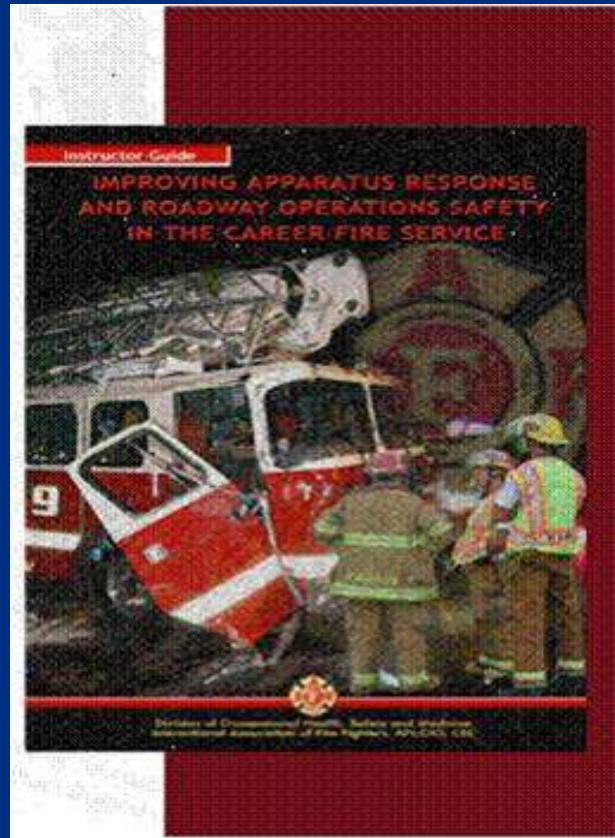


## Partnership with International Association of Women in Fire and Emergency Services - 2019



# Emergency Vehicle Safety Initiative

Targeted educational outreach initiatives for the Fire Service with the IAFC, IAFF, and NVFC



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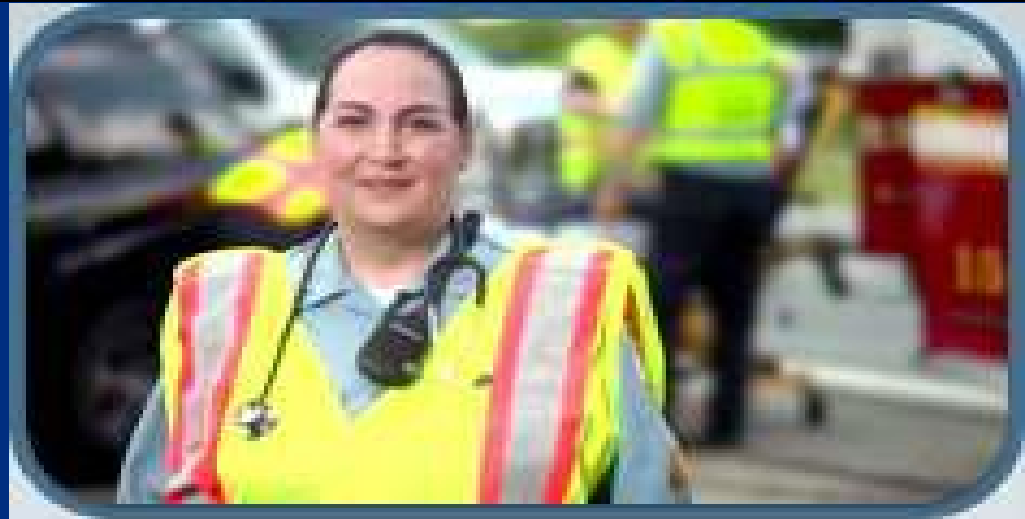
# Protecting Emergency Responders on Highways



## ResponderSafety.com

[Home](#)[Archives](#)[About Us](#)[Editors](#)[Training](#)[Move over](#)[Links](#)[Contact Us](#)

Developed Slow Down and Move Over Public Service Announcement based on past USFA supported Roadway Safety Research for all public safety, including Law Enforcement.



**NEW Slow Down Move Over PSA**



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# Safety Infographics



## Motorists: Move over for emergency responders!

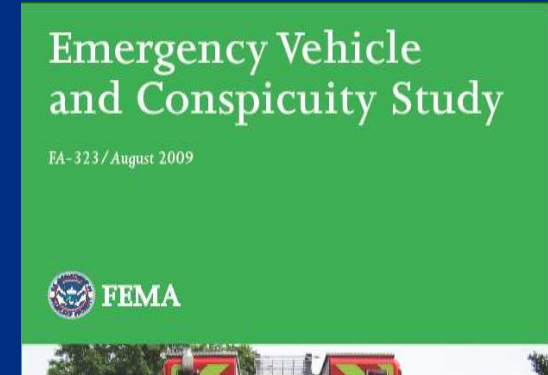
When you see emergency lights, slow down and move over to keep working responders safe.



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# Study of Emergency Warning Lights

Existing studies are being revised in FY2020 to include the brightness of new LED warning lights and their flash patterns. With CVVFA's Emergency Responder Safety Institute along with MIT and Embry Riddle University.



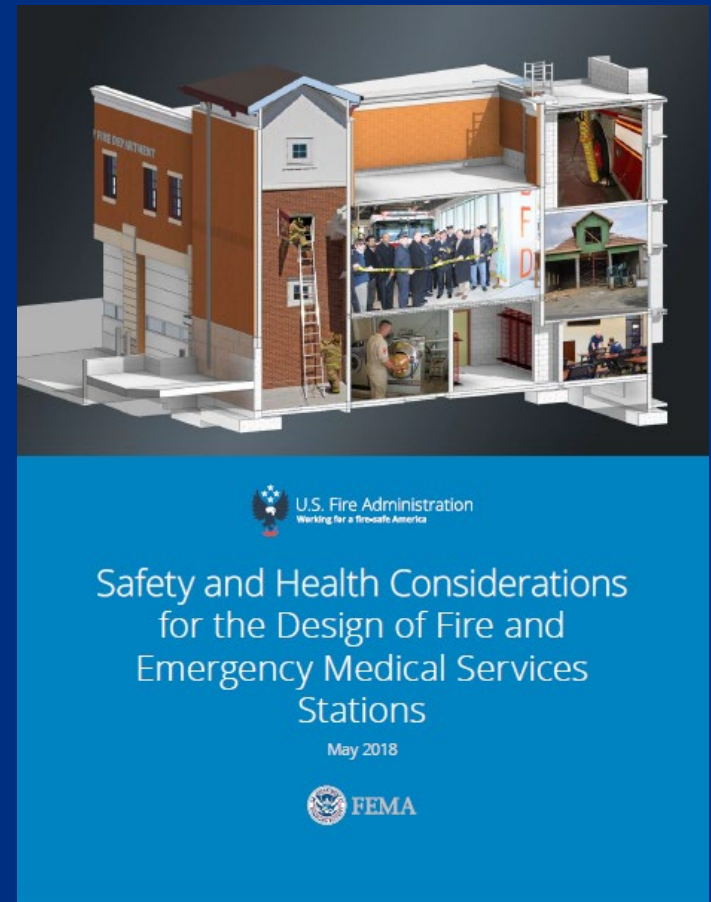
Effects of Warning Lamp Color and Intensity on Driver Vision

October 2008



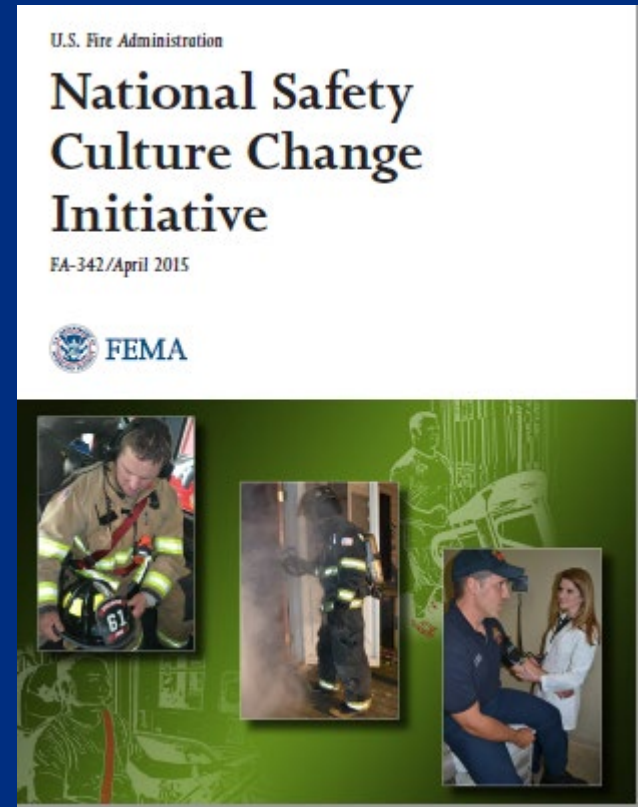
# Safety and Health Considerations for the Design of Fire and EMS Stations

Document provides a look at ways to increase safety, health and wellness in new station design and construction.(2018)



# National Safety Culture Change Initiative

Document provides a look at ways to enhance positive cultural issues and reduce negative cultural issues.  
(2015)





# Focused EMS Project Initiatives

## NFDC EMS Specific projects



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# EMS Safety Study 2020

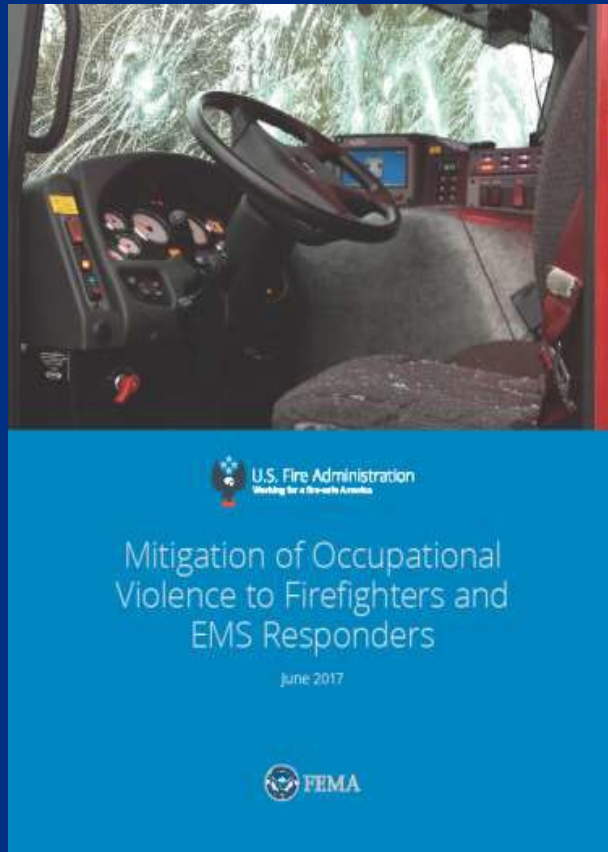
EMS safety study being updated during FY2020 in partnership with the IAFF.



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# Mitigation of Occupational Violence to Firefighters and EMS Responders



With Drexel  
University's Dornsife  
School of Public  
Health and IAFF –  
2017.



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# Studies of Violence Against Responders

A Systematic Review of Workplace Violence Against Emergency Medical Responders, 2019, Regan, M. Murray, Andrea L. Davis, Lauren J. Shepler, Lori Moore-Merrell, William J. Troup, Joseph A. Allen and Jennifer A. Taylor.

<https://journals.sagepub.com/doi/full/10.1177/1048291119893388>



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# Studies of Violence Against Responders

“Felony assault should stick:” Assaulted EMS Responders frustration and dissatisfaction with the legal system. AM J Ind Med. 2019.1-13. Jasmine Y. Wright, Andrea L. Davis, Sherry Brandt-Rauf, and Jennifer A. Taylor.

<https://www.ncbi.nlm.nih.gov/pubmed/31418880>

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# Studies of Violence Against Responders

Creation of a Systems-Level Checklist to Address Stress and Violence in Fire-Based Emergency Medical Services Responders. J Occup Health Sci (2019) 3:265 Jennifer A. Taylor, Regan, M. Murray, Andrea L. Davis, Lauren J. Shepler Cecelia K. Harrison, Neva A. Novinger, and Joseph A. Allen.

<https://link.springer.com/article/10.1007/s41542-019-00047-z>



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# Studies of Violence Against Responders

Expecting the Unexpected: A Mixed Methods Study of Violence to EMS Responders in an Urban Fire Department. Am J of Industrial Med 59(2) 150-163 (2016) 3.265 Jennifer A. Taylor, Brittany Barnes, Regan, M. Murray, Andrea L. Davis, Jasmine Wright, Shannon Widman, and Michael LeVasseur.

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4736678/pdf/AJIM-59-150.pdf>



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# Obtaining Documents

All of our reports/studies are available on line:  
<https://www.usfa.fema.gov>.

Search for the title or topic and then you can download the document as a PDF.





# National Emergency Training Center Library

- Provides information and resources for
  - Fire/EMS/Emergency Management
  - Other all-hazards
- Over 208,000 books, reports, audiovisual materials and indexed articles
- Supports research, classroom lectures, development of course materials, guidance documents, etc.
- <https://usfa.kohalibrary.com/>



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# National Fire Academy

US Fire Administration's NFA offers EMS-related management, operations, and safety related courses.

- On Campus
- State, local, tribal and territorial deliveries
- On-line deliveries

<https://www.usfa.fema.gov/training/nfa/>



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# National Fire Academy

## Multiple EMS Safety-Related Courses

- ALS Response to HazMat Incidents
- Department Wellness Program
- EMS Incident Operations
- Management of EMS
- Health and Safety Program Manager
- Safety Program Operations
- Fire Service Safety Culture: Who Protects Firefighters from Firefighters?

# Contact Information

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